

WHAT IS CLAIMED IS:

1. A miter saw comprising:

a base;

5 a fence secured to the base and having an abutment surface on which a side of a workpiece abuts for positioning the workpiece on the base;

a cutting unit supporting a circular saw blade which provides a plurality of blade tips;

10 a support unit movably supporting the cutting unit above the base;

a light projecting device that forms a projected line on the workpiece, the line being indicative of a position of a tip of the circular saw blade and a position of an extension of the tip in a diametrical direction of the circular saw blade; and

15 a mirror provided at a position in confrontation with the side of the workpiece in abutting contact with the abutment surface of the fence for reflecting the line on the side of the workpiece and for allowing an reflected line image to be observed from a side of the abutment surface of the fence.

20 25 2. The miter saw as claimed in claim 1, further comprising a turntable rotatably mounted on the base for supporting the workpiece in cooperation with the base, the fence extending across the turntable.

3. The miter saw as claimed in claim 2, wherein the mirror is secured to one of the turntable, the cutting unit and the support unit.

4. The miter saw as claimed in claim 1, wherein
5 the light projecting device comprises a laser oscillator.

5. The miter saw as claimed in claim 4, wherein the laser oscillator is provided at a position in confrontation with the side of the workpiece which abuts on the fence.

10 6. The miter saw according to claim 5, further comprising a turntable rotatably mounted on the base for supporting the workpiece in cooperation with the base, the fence extending across the turntable;

15 wherein the fence has another surface opposite to the abutment surface; and

wherein the support unit is provided on the turntable at a side of the another surface of the fence, the support unit having one side in confrontation with the fence, and the one side being formed with a recess for accommodating therein the laser oscillator, the recess defining an open end open to the one side; and

20 the miter saw further comprising a cover formed with an opening which allows a laser beam to pass therethrough, the cover being fixed to the one side of the support unit
25 for covering the open end, and the cover having one side

serving as the mirror.

7. The miter saw as claimed in claim 1, wherein the cutting unit comprises:

5 a gear case supported to the support unit and pivotally movable upward and downward, the circular saw blade being rotatably supported by the gear case;

a saw cover provided integrally with the gear case and opposing the gear case;

a motor housing provided at a top of the saw cover;

10 a motor disposed in the motor housing; and

a power transmission mechanism provided between the motor and the circular saw blade for transmitting rotation of the motor to the circular saw blade.

8. The miter saw as claimed in claim 1, wherein 15 the cutting unit comprises:

a gear case supported to the support unit and pivotally movable upward and downward, the circular saw blade being rotatably supported by the gear case;

a saw cover opposing the gear case; and

20 a handle provided on the saw cover, the mirror being located below the handle.

9. The miter saw as claimed in claim 2, wherein the fence has another surface opposite to the abutment surface, and

25 wherein the support unit comprises:

a holder upstanding from the turntable at a side in confrontation with the another surface of the fence; and

5 a sliding unit pivotally movably supporting the cutting unit and slidably movable with respect to the holder in a direction perpendicular to the fence, the mirror being attached to the sliding unit.

10. The miter saw as claimed in claim 2, wherein the fence has another surface opposite to the abutment surface, and

10 wherein the support unit has a base end portion connected to the turntable and upstands from the turntable at a side in confrontation with the another surface of the fence, the support unit being pivotable about the base end portion and movable in an extending direction of the fence.

15. The miter saw as claimed in claim 10, wherein the mirror is provided on the support unit and extends in a direction in which the fence extends with an extending length capable of being located vertically above an intersection between the base and the circular saw blade regardless of any pivotally moving position of the cutting unit 20 in accordance with the pivotal movement of the support unit.

12. The miter saw as claimed in claim 1, wherein the light projecting device comprises a light illumination unit mounted on a top portion of the cutting unit.

25. 13. A miter saw comprising:

a base;

a turntable rotatably mounted on the base for supporting a workpiece, the turntable having an upper surface;

5 a fence secured to the base and extending across the turntable, the fence having an abutment surface on which a side of the workpiece abuts for positioning the workpiece, the fence comprising a pair of fence bodies extending linearly and spaced away from each other to form a space between opposing inner ends of the fence bodies;

10 a cutting unit supporting a circular saw blade;

a support unit movably supporting the cutting unit to the turntable, the cutting unit being positioned above the turntable;

15 a blade guide attached to the upper surface of the turntable and formed with a slit allowing the circular saw blade to be entered therein, the slit having a rear end always positioned in alignment with the space regardless of rotation of the turntable; and

20 a mirror provided at a position in confrontation with the side of the workpiece in abutting contact with the abutment surface of the fence for reflecting the rear end of the slit.